

**METHOD FOR BACK-UP DUAL-FREQUENCY NAVIGATION DURING
BRIEF PERIODS WHEN MEASUREMENT DATA IS UNAVAILABLE ON
ONE OF TWO FREQUENCIES**

The present invention includes a method for performing backup dual-frequency navigation during a brief period when one of two frequencies relied upon by dual-frequency navigation is unavailable. The method includes synthesizing the code and carrier-phase measurements on the unavailable frequency using the carrier-phase measurements on the retained frequency and a model of ionospheric refraction effects, which is updated when measurements on both frequencies are available.